Monthly Progress Report

Amadablam Mini Hydro Subproject (911 kW)

Khumbu Pasanglhamu Rural Municipality, Ward No. 4

Solukhumbu, Nepal

Submitted To:

Alternative Energy Promotion Centre (AEPC)

Mini Grid Energy Access Project (MGEAP)

Central Renewable Energy Fund (CREF)

Siddhartha Bank Limited (SBL)

Khumbu Pasanglhamu Rural Municipality (KPLRM)

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December 2025

Monthly Progress Report of December 2025

1. Executive Summary

1.1 Brief Overview of the Project

Amadablam Mini Hydro Pvt. Ltd, Tilganga -8, Kathmandu, an Energy Sector Company (ESCO) intends to implement Amadablam Mini Hydro Subproject in Khumbu Pasanglhamu Rural Municipality-4, Solukhumbu district in Koshi Province, as a business /PPP model through technical and discussion in financial support of Government of Nepal and the World Bank through AEPC/MGEAP. The sub-project is in Sagarmatha National Park which lies on the trekking trail of Everest Base Camp which is one of the most popular tourist areas of Nepal. ESCO intended to provide electricity to households and other energy users such as Anchors/Business and Community. ESCO will be responsible for development, operation, maintenance, and management of the mini hydro plant. They will be functioning as a service provider and owner of the subproject.

Amadablam Mini Hydro Pvt. was changed to a public limited in 10th October 2023. This was done to facilitate the process of PPP model with Khumbu Pasanglhamu Rural Municipality. At present there are seven number of shareholders in the company, which also includes Beyul Hydro investment Pvt. Ltd. The office of Amadablam Mini Hydro Limited was located in Kapan, Nilopul, Kathmandu. Office location has been recently changed to Chandol, Kathmandu. The subproject is to be implemented as a business model through the technical and financial support of the Government of Nepal and the World Bank through AEPC/MGEAP. Furthermore, the subproject is supported by Foreign, Commonwealth and Development Office (FCDO) through AEPC/NREP.

Amadablam Mini Hydro Project is a run of the river type (RoR) scheme located in ward no-4 of Khumbu Pasanglhamu Rural Municipality of Solukhumbu district. The project is located inside the core region of Sagarmatha National Park. The project utilizes water diverted from Cholunche Khola to generate 911 kW power. The design flow of the project is 250 lps and gross head is 471.87 m. Cholunche Khola is a perennial river which flows from the Himalaya peak on the Northern side of Solukhumbu district and is a tributary of the Imja River. The project site is located near Pangboche village of Solukhumbu district. The boundary coordinates of the project lie between latitude 27° 50' 50" N and 27° 51' 40" N and longitude 86° 47' 49" E and 86° 49' 19" E. The proposed intake site is located at 27°50'56.52"N, 86°49'6.15"E and an elevation of 4422 amsl. The powerhouse site is located at 27° 51 '12.98"N, 86° 47' 49.21"E and an elevation of 3951.18 amsl. The project will be serving 451 households.

Project Financials:

SN	Source of Fund	Amount (NRs.)
1	AEPC	
1.1	Subsidy (MGEAP)	128,307,000.00
1.2	VGF Support (SECF)	170,050,000.00
2	Loan from Partner Bank (Siddhartha Bank)	150,000,000.00
3	Equity of ESCO	90,544,638.89
4	Investment of RM	80,000,000.00
	Total Subproject Cost (1+2+3)	**618,901,638.89**

1.2 Summary of key accomplishments to date

1.2.1 Agreements between Stakeholders

ESCO and RM:

First agreement : 1st January 2024

First Amendment : 12th February 2025

Second Amendment : 15th April 2025

AEPC and ESCO: : 29th March 2024

ESCO and Partner Bank:

Syndicated Credit Facilities Agreement : 7th January 2024

Supplementary Credit Facilities Agreement : 22th April 2025

1.2.2 Procurement

As a continuation from the previous month's report, all procurement activities are currently in progress. During the month of December, the design of the earthing mat was finalized, and the related payment has been completed following minor negotiations on the total cost. Procurement processes for the remaining items are ongoing and are progressing as planned.

1.3 Key Challenges Encountered and Solutions Implemented

Due to cold weather, work at the intake site is halted. Excavation works have commenced at both the penstock alignment and the powerhouse site; however, due to extreme cold weather (-8°C at morning and -15°C at night) conditions on site, manpower could not be sustained at the penstock alignment. If the temperature deepens further, the work might need to stop until next summer. T&D contractors have shown some reluctance in work progress due to financial issues. The EM contractor has proposed the Factory Assessment Test in the second week of February, so shipping of EM components to port shall subsequently be delayed and transportation to site will be unlikely before the trekking season starts.

2. Work Progress Overview

Amadablam Mini Hydro Limited is somehow satisfied with the current work progress of the contractors. The first IPC of the civil contractor has been disbursed, and construction materials are currently being collected at the site. So far, the T&D contractor has shown some progress and quality testing of low-tension cables, service cables and ACSR conductors have been checked after completing manufacturing. The HM contractor has completed transportation of the penstock pipes from roadhead to site and planning for EDF of expansion joints and accessories. The bends have been prepared at the roadhead. The EM contractor has significantly progressed the fabrication work and planned for FAT in mid-February.

2.1 Activities

2.1.1 Human Resource Management

During the month of December, the Human Resource Department successfully carried out its regular operational activities with a strong focus on staff coordination, record management, contractor detail updates, and stakeholder communication.

1. Staff Operations & Coordination

• Ensured smooth day-to-day HR operations and provided timely administrative support to all departments.

• Coordinated effectively with staff regarding assigned duties, workplace concerns, and general administrative requirements.

2. Attendance & Record Management

• Updated and maintained staff attendance records, including leave, punctuality, and absences.

• Ensured all HR-related documents were accurately recorded and properly filed in both physical and digital formats.

3. Monthly Staff Meeting

• Successfully conducted the monthly staff meeting on 16th December 2025 (First Tuesday).

• Key discussions covered staff performance, achievements, compliance requirements, upcoming tasks, and existing challenges.

4. Shareholder Information Management

• Actively maintained shareholder information in both hard-copy and digital records.

• Regularly communicated with shareholders via phone to verify or update required details.

• Promptly responded to shareholder emails and calls, including inquiries related to share advances and overall project progress.

5. Communication & Responsiveness

• Maintained timely, professional, and effective communication with internal staff and external stakeholders.

• Continued to strengthen trust and transparency by addressing queries accurately and within a reasonable timeframe.

2.1.2 Meetings and Events

Board Meeting

During the month of December, a Board Meeting of Amadablam Mini Hydro Limited was held on 11th December 2025. The meeting primarily focused on preparations for the forthcoming Annual General Meeting (AGM).

Key agenda included discussion on the contractor's request for time extension, review of the overall project progress, and equity collection planning under Any Other Business (AOB). The board also reviewed and confirmed the proposed AGM agenda, staff contract agreements, and other matters requiring the board's consideration.

The meeting further finalized the AGM schedule, which is planned to be held on 7th January 2026 at Siddhartha Boutique Hotel, Boudha, Kathmandu.

2.2 Summary of Completed and Ongoing Tasks

The civil construction works at the AMHL project have advanced notably, with RCC works coming to an end at gravel trap and desanding structures. Penstock alignment excavation is ongoing, with approximately 700m of track opening in progress, and powerhouse excavation continuing up to a depth of 2m. With transportation of HM components being carried out, significant progress about fabrication of EM components and procurement of T&D components, the project remains on track to achieve its next set of milestones.

2.2.1 Civil Works

a. Headworks Construction and Material Mobilization

Work halted due to cold weather.

b. Intake and Gravel Trap

Work halted due to cold weather.

c. Desanding Basin cum Forebay

Work halted due to cold weather.

d. Penstock Pipe Alignment and Excavation

Due to the cold season, the excavated layer becomes hard overnight, making excavation work difficult the following day. Despite these challenges, works are progressing in phased coordination with the HM contractor to ensure proper sequencing for the installation of penstock components. A joint survey by the Civil and HM contractors is conducted in the first week of December to verify the alignment profile. The survey report indicates an alignment shift extending into Gumba land, necessitating the addition of one new anchor block.

e. Powerhouse Construction

Excavation works at the powerhouse have commenced, and excavation has been carried out up to a depth of 2 m. The draft earthing mat design report has been submitted and is currently under review.

2.2.2 Hydro-Mechanical Works

Progress Achieved

During the reporting period, notable progress was achieved in the Hydro-Mechanical (HM) works. Of the total 604 penstock pipes, 567 pipes have been successfully airlifted to the project site, representing a substantial completion of pipe transportation activities. The remaining 37 pipes are currently stationed at Surke for bend fabrication.

As of the reporting date, 14 bends have been fabricated, and 38 expansion joints have been delivered to Surke, with the remaining bends expected to arrive in due course. The HM Contractor has planned the airlifting of all remaining pipes, fabricated bends, expansion joints, and associated HM equipment in early March 2026, with the intention of ensuring continuity and timely execution of penstock installation works.

Constraints and Impacts

Progress of the HM works during the reporting period was affected by a combination of regulatory restrictions and adverse climatic conditions.

In addition, the onset of severe winter conditions and persistent sub-zero temperatures at the project site necessitated the suspension of trench excavation works and rendered concreting activities for saddle supports and anchor blocks technically impracticable. Such conditions posed unacceptable risks to safety and would have compromised the quality and long-term performance of the works. Extreme cold temperatures also adversely affected the reliable operation of construction equipment, including power generation units required for welding and fabrication activities.

Mitigation Measures and Ongoing Activities

Notwithstanding the above constraints, the HM Contractor continued to undertake bend fabrication works at Surke, the maximum accessible road head, thereby maintaining progress wherever practicable. This approach ensures that critical components are prepared in advance, allowing for immediate mobilization and installation once favorable weather conditions and logistical access are restored.

Recommendation

Considering that the delays encountered are primarily regulatory, climatic, and logistical in nature, and are beyond the Contractor's reasonable control, it is recommended that a reasonable Extension of time (EoT) be granted to the contractor 30th June 2026. Granting the EoT will enable the remaining Hydro-Mechanical works to be executed in a safe, technically compliant, and quality-assured manner, without undue risk to personnel, equipment, or long-term project performance, upon the resumption of favorable site and operational conditions.

Additionally, a trial saddle support was constructed at the site on Anchor Block No. 56 to verify the adequacy of concrete setting and curing under prevailing site conditions. This trial was carried out to assess the performance of the concrete, as ambient temperatures at the site drop to sub-zero levels during nighttime. The exercise was undertaken to evaluate whether concrete works can be safely and effectively continued during the upcoming months, when temperatures are expected to fall further during the peak winter season.

2.2.3 Electro-Mechanical Works

With continuous efforts from both ESCO and the EM Contractor in advancing contractual and administrative matters, ESCO successfully received the Advance Payment Guarantee (APG) and subsequently released the 10% advance payment in accordance with the Contract Agreement.

In addition, the EM Contractor submitted the detailed design documents for the electro-mechanical (EM) equipment for review and approval. Following technical evaluation, the design has been approved, and accordingly, ESCO has initiated the process for the release of the subsequent 20% payment, as stipulated under the relevant payment clause of the contract.

A virtual coordination meeting was held with the EM Contractor on Tuesday, 23rd December 2025, during which the Contractor presented the current manufacturing and procurement status of the EM equipment. Based on the information provided, the overall progress is in line with the

approved schedule, and no major risks affecting delivery or installation were identified at this stage.

Furthermore, discussions were held regarding the Factory Acceptance Test (FAT) to be conducted in Greece, tentatively scheduled for early February 2026. The EM Contractor was requested to initiate preparation of the required documentation for visa processing immediately after the Christmas and New Year holidays in Greece.

During the same discussion, although the contractor confirmed that the overall project timeline remains unaffected, ESCO formally requested the Contractor to expedite the shipment of EM equipment from Greece, targeting arrival at Kolkata Port by mid to late March 2026. This request was made in consideration of the peak Everest climbing season, during which helicopter availability in the region is expected to be limited due to climber and logistics transport activities, potentially impacting the timely airlifting of equipment to the project site.

2.2.4 Transmission & Distribution Works

During the reporting month, substantial progress was achieved in the Transmission and Distribution (T&D) works of the project. Major activities included the successful completion of factory testing of Low Tension (LT) Cables and Service Wires.

In this regard, a factory test team comprising representatives from the Contractor, AEPC, and AMHL was formed. Factory acceptance tests were conducted from 23rd to 26th December at Janta Cable Industries Pvt. Ltd., Khanar, Itahari. The tests were carried out under the supervision of the Quality-in-Charge, Er. Pankaj Yadav of JCI. The scope of testing included Conductor Resistance Test, High Voltage Test, Insulation Resistance Test, Hot Set Test, Hot Shock Test, Tensile and Elongation Test, Shrinkage Test, and Flammability Test. Upon completion of the tests, detailed test reports were prepared by JCI and duly signed by all members of the test team.

Furthermore, on 22nd December, en route to the cable factory, a joint team conducted a visit to Hulas Infra Industries, Birgunj, a pole and accessories manufacturing company. During the visit, the quality control procedures, manufacturing processes, and galvanization practices were reviewed. The project's requirements for poles and accessories were formally communicated, and a brief coordination meeting with the CEO of Hulas Infra was also held. Following this visit, submission of the Guaranteed Technical Particulars (GTP) and approval requests for poles and accessories from the Contractor are expected.

Regarding the High Tension (HT) Cable, a revised GTP has been requested in compliance with relevant IS/IEC standards while remaining within the project's specified limits. The Contractor is

currently in the process of finalizing a suitable vendor after incorporating specification modifications, and submission of the GTP along with approval requests is anticipated by the second week of January.

Overall, the progress of T&D works during the month has been satisfactory and progressive. The upcoming month will be critical, with key milestones including dispatch of LT Cables, Service Cables, and ACSR Conductor (Weasel), as well as approvals for poles, accessories, and High-Tension Cables.

2.2.5 Environment & Social Safeguard

This section provides an update on the progress of environmental and social safeguards implemented at the project site. Environmental, health, and safety (EHS) rules are being followed at all ESCO construction sites. Workers have been given personal protective equipment (PPE) and life insurance to keep them safe and protected. First aid boxes are maintained on-site following clear guidelines to ensure that all medicines are properly stored and are not expired. The installation of project area delineation and construction signage has been completed at the site. The project information board is installed in a visible place accessible to everyone at the construction site. Labor camps consisting of tents have been established in accordance with site conditions. Housekeeping and waste management practices are being maintained effectively to ensure a safe and clean working environment. The Occupational Health and Safety (OHS) checklist and supporting photographs are attached in **Annex 2 and Annex 3.**

Key Activities during this Month

- **Review of Environmental Reports**

Reviewed the Environmental Impact Assessment (EIA) and Environmental and Social Impact Assessment (ESIA) reports to ensure that site activities are carried out in full compliance with the Environmental and Social Management Plan (ESMP).

- **Follow-up on Land-Related Documents**

Coordinated with the Ministry of Forests and Environment (MoFE) and the Ministry of Energy, Water Resources and Irrigation (MoEWRI) regarding AMHL's land-related documentation. The land documents are now in process for forwarding to the Cabinet for further discussion and approval.

- **Orientation to the labor regarding occupational health and safety**

An orientation session was conducted for additional laborers on Occupational Health and Safety (OHS) practices, with a focus on prioritizing safety at the work site. The session included detailed guidance on the proper use of Personal Protective Equipment (PPE) to ensure maximum protection. Furthermore, the importance of maintaining good housekeeping practices was emphasized to keep the construction site safe, organized, and free from potential hazards. **(Note: Although construction work has stopped due to cold weather conditions, material collection continues at the powerhouse site)**

- **Installation of Project Information Board at Construction Site**

The project information board has been installed at the construction site in a clearly visible location. It provides clear details about the project, including its duration, budget, donor, and other relevant information.

- **Waste Management at the Construction Site**

Kitchen waste is being managed properly by collecting all kitchen refuse in a designated pit, which is covered with soil daily. The pit is barricaded to prevent potential hazards. Other solid wastes are collected, segregated, and managed following the principles of waste reduction, reuse, and recycling. Collected waste will be transported to the Pangboche waste collection site for safe disposal.

- **Construction Site Labor Logbook Management**

Construction activities are ongoing at the project site. Detailed labor information is provided in **Annex 4.**

- **Construction Site Emergency Contact Number Update**

Emergency contact numbers have been updated on the information boards at the construction site and nearby villages to ensure prompt rescue in case of any emergency or injury. However, phone network coverage is unavailable on-site but can be accessed about 10 minutes from the construction area**.**

- **Installation and Enforcement of Code of Conduct for Workers on Construction Site**

Laborers receive daily orientations on the code of conduct, which clearly outlines acceptable and prohibited behaviors on the construction site. The code of conduct has clearly displayed at the site for continuous reference. Furthermore, laborers have signed self-declaration forms acknowledging their understanding of the code, including their commitment to preventing sexual harassment and exploitation.

- **Regular Monthly Staff Meetings and other Meetings**

The monthly environment, health, and safety (EHS) meeting was not held this month, as construction activities remain paused due to cold weather conditions.

- **Communication and Coordination with Contractor Team**

Coordination and communication with the contractor and contractor representative are actively maintained on-site concerning Occupational Health and Safety (OHS), site housekeeping, waste management, availability of PPE, labor insurance policies, timely installation of the project information board, and other activities related to the construction labor code of conduct.

ESS Activities for Next Month (January 2026)

- Conduct training and implement environmental and social activities in accordance with the ESMP.
- Project site monitoring and supervision as per ESMP.

(Note: Although construction work has stopped due to cold weather conditions, material collection continues at the powerhouse site)

3. Monthly Financial Progress Report – December 2025

This section presents the financial progress of the **Amadablam Mini Hydro Project** for the month of **December 2025**. It summarizes the status of subsidy disbursements, loan and equity mobilization, operational expense settlements, procurement financing, and bank guarantee adjustments essential for advancing the project across civil, hydro-mechanical, electro-mechanical, and transmission components.

3.1 Source of Funds and Disbursement Status

SN	Source of Fund	Approved Amount (NRs.)	Disbursed Amount (NRs.)
1	Financial Support		
1.1	Subsidy (AEPC)	12,83,07,000.00	–
1.2	VGF Support (SECF)	17,00,50,000.00	12,91,07,429.49
2	Loan from Partner Bank (Siddhartha Bank Ltd.)	15,00,00,000.00	4,24,35,833.80
3	Equity – ESCO	9,05,44,638.89	4,73,30,000.00
4	Investment – RM	8,00,00,000.00	80,00,000.00
	Total Subproject Cost	**61,89,01,638.89**	**22,68,73,263.29**

3.2 Contract Work Summary (Financial Progress)

Component	Contract Amount (NRs.)	IPC Till Date (NRs.)	Remaining Work (NRs.)	% Completion
Civil Works	11,19,04,868.64	1,03,82,572.04	10,15,22,296.60	9.28%
Hydro-Mechanical (HM)	13,98,32,171.59	7,44,84,236.87	6,53,47,934.72	53.27%
Electro-Mechanical (EM)	7,98,81,071.30	–	7,98,81,071.30	0.00%
Transmission & Distribution (T&D)	9,98,11,036.80	–	9,98,11,036.80	0.00%
Total	**43,14,29,148.33**	**8,48,66,808.91**	–	**19.67%**

3.3 AEPC Subsidy and Viability Gap Funding (VGF) Support

No new subsidy inflow was received during the month of December 2025. However, an amount of NPR 2,53,08,145.73 was received on 31 December 2025 against previously approved claims. Consequently, the cumulative subsidy received by the project stands at NPR 12,91,07,429.49, which continues to play a vital role in supporting the ongoing implementation and financial sustainability of the project.

3.4 Update on Electro-Mechanical Procurement – December 2025

The Letter of Credit (LC No. MT700-001ILSF250702002), opened in July 2025 for the electro-mechanical component, remains valid.

The 10% advance payment to the electro-mechanical supplier Poseidon S.A., Greece, has already been released upon receipt and acceptance of the required Advance Payment Guarantee (APG). Subsequently, the supplier has initiated the process for the remaining 20% advance payment, which is currently under processing with the concerned bank and subject to fulfillment of the applicable contractual and banking requirements.

3.5 Operational Advances – Lot-wise Summary

AEPC has disbursed operational advances to Amadablam Mini Hydro Limited (ESCO) in multiple tranches to meet eligible operational expenses during project implementation. The details are summarized below:

Lot No.	Date of Request	Reference No.	Date of Receipt	Amount Received (NPR)
1st Lot	14 July 2024	2080-81/55	14 July 2024	5,000,000.00
2nd Lot	29 June 2025	2081-82/150	3 July 2025	2,391,689.80
3rd Lot	28 July 2025	2082-83/01	16 September 2025	2,590,945.58
	Total			**9,982,635.38**

3.6 Equity Contributions

During December 2025, an additional equity contribution of NPR 2,500,000.00 was infused by ESCO. Prior to this contribution, ESCO's cumulative equity stood at NPR 47,330,000.00, while Khumbu Pasang Lhamu Rural Municipality had contributed NPR 8,000,000.00 toward the project.

3.7 Summary of Financial Status – December 2025

December 2025 marked a phase of steady and measurable progress for the Amadablam Mini Hydro Project, characterized by disciplined financial management and effective utilization of available resources.

The project team maintained strict compliance with AEPC guidelines, ensuring transparency, accountability, and proper documentation of all financial transactions. Progress on electro-mechanical procurement is being closely monitored, with continuous coordination to facilitate timely advance payments and safeguard contractual obligations. The successful adjustment of the Advance Payment Guarantee and prudent management of operational advances further reflect the project's commitment to sound financial governance.

Continued equity support from ESCO demonstrates strong institutional ownership and confidence in the project. Overall, the financial and operational progress achieved in December 2025 has strengthened the project's foundation and positioned it well for upcoming implementation milestones, contributing meaningfully to Nepal's renewable energy development objectives.

4. Quality Assurance and Quality Control

AMHL has strongly instructed the civil contractor to test the construction materials and concrete during construction and shall be monitored by the technical team. QA/QC of distribution cables, service cables and ACSR conductors have been done at the factory during FAT.

5. Social Media Outreach and Engagement Statistics

Since August 2025, Amadablam Mini Hydro Limited has been actively utilizing its official social media platforms to strengthen project visibility and enhance stakeholder engagement. The dedicated accounts on Facebook, Instagram, and LinkedIn continue to share regular updates highlighting project milestones, community benefits, and awareness on renewable energy development.

5.1 Audience Engagement – Quiz Activity

To encourage audience interaction, two quiz questions were posted during the month, including:
"Beneficiary villages of the Amadablam Mini Hydro Project."

"Installed electricity generation capacity of the project in the Khumbu region."

These activities supported active participation while improving public awareness of the project's significance.

5.2 Social Media Performance Summary

Facebook:
The Facebook page remained active and performed well, maintaining a total of 250 followers. Posts received an average of 15 reactions and approximately 6 comments, indicating steady and positive audience engagement.

Instagram:
The Instagram account currently has 32 followers. During the month, posts recorded 5 likes and 5 reactions, with no shares. This suggests comparatively lower engagement and highlights potential for further content optimization.

LinkedIn:
The LinkedIn page showed steady growth, reaching 65 followers, an increase from the previous period. Monthly engagement included 6 comments and 1 repost, reflecting rising professional interest and improved visibility of company activities.

6. Risks and Mitigation Measures

6.1 Technical Risks

Excavation works at the intake and under-sluice areas were not feasible during the rainy and snowfall season. However, the timely completion of the intake structures before the 2026 monsoon is critical, as any delay beyond this period will result in an additional one (1) year delay in the overall project schedule. There is a significant risk between anchor blocks 20 to 24 and anchor blocks 37 to 43 dues to steep terrain and the presence of large boulders, which will make the execution of pipeline construction difficult. Due to the cold season, the excavated layer becomes hard overnight, making excavation work difficult the following day. A joint survey is conducted and the survey report indicates an alignment shift extending into Gumba land, necessitating the addition of one new anchor block.

6.2 Financial Risks and Mitigation Measures

1. Financing, Interest Rate, and Cost Overrun Risk
Risk: Potential exposure to interest rate fluctuations, delayed subsidy or equity inflows, and cost overruns across civil, HM, and EM components may impact project cash flow and timelines.
Mitigation Measures:
• Maintain contingency provisions for unforeseen cost escalations.
• Prefer fixed-price or well-defined contracts where feasible.

• Conduct regular financial reviews and expense monitoring against the approved budget.
• Ensure timely follow-up on subsidy releases and equity infusions.

2. Contractor Non-Compliance Risk
Risk: Delays in submission of guarantees, slow execution, or non-compliance with contractual requirements may lead to schedule slippages, additional financing costs, and reputational risk.
Mitigation Measures:
• Closely track contractor performance against contractual milestones.
• Enforce timely submission of guarantees and compliance documents.
• Apply progress-linked payments and contractual penalty provisions where applicable.
• Maintain proactive communication with lenders, AEPC, and regulatory authorities to manage financial and operational implications effectively.

6.3 Physical, Biological, Environmental and Social Impact/ Risk

The subproject area is located in the northeastern mountain region of Nepal. The subproject area geologically lies on the Higher Himalayan Crystalline Zone in the eastern part of Nepal. The subproject area possesses the high-grade metamorphic rocks. The subproject area has gneisses, schists and marbles of the Higher Himalayan Zone and Tethyan sediments (limestone, shale, sandstone etc. belonging to the Tibetan-Tethys Zone. Most of the area is exposed bedrock with thin colluvial soil cover. The colluvial soil comprises boulders, gravels, cobble and pebbles of gneiss with sand. The subproject area lies in subalpine to alpine climatic zone. The average annual rainfall is 1524 mm. January is the coldest month and July is the warmest month of the subproject area. The minimum temperature of the Pangboche area goes down below 0°C about 7 months of the year. The weir will be in the river while penstock pipe lies in grassland. The powerhouse will be constructed in grassland. Transmission and distribution lines pass through tourist trekking routes.

6.3.1 Adverse Impacts

a. Physical Environment

Change in land use, topography, soil erosion, sedimentation in river water, spoil generation, impact on hydrology and river morphology and loss of topsoil are major adverse impacts on the physical environment during construction.

b. Biological Impacts

A total of 5.719 ha land of SNP has been required to construct various subproject components. Pressure on forest for fuelwood, impact on wildlife movement, aquatic flora and fauna, NTFPs,

forest fire, wildlife hunting and poaching and increase in human wildlife conflict are identified as adverse impacts during construction.

c. Socio-economic and Cultural Impacts

Pressure on existing facilities, services and resources of subproject area, health and sanitation and public safety, occupational health and safety, socio-cultural conflicts between locals and migrant workforce, gender-based violence, issues related to disturbances to community and child labour issues are the identified potential impacts during construction.

d. SNP and Outstanding Universal Value (OUV)

The proposed subproject is located in the SNP and might have an impact on scenic beauty. There has been negligible impact on local social and cultural integrity as locals are already exposed to diverse groups of people since the last 75 years.

6.3.2 Mitigation Measures

a. Physical Environment

Land clearance has been minimized to the extent possible to prevent erosion and landslides. Excavated materials have been used for land reclamation and rehabilitation. Trenches, quarry sites, and disposal sites have been rehabilitated immediately. Spoils have been stored in designated areas (27°50'56.52" N, 86°49'6.15" E & 27°51'12.98" N, 86°49'49.21" E). People will be made aware about the early warning system and emergency preparedness plan through an awareness program.

b. Biological Environment

Unnecessary visits and smoking in the forest area have been prohibited for subproject staff and construction workers to reduce the possible risk of forest fire, hunting, and poaching. Due maintained during operation Due to very cold climate in 3.5 Km long dewater area, fish cannot be found and the water flow is also sub-surface in many places, it does not seem to affect the to intense cold climate A minimum environmental flow of 50% of the mean monthly flow will be biological environment. In addition, water flow from 50% release will be abundant to sustain the life of animals and plants if any in the area. All the workers and subproject staff have been provided with LPG for cooking to reduce pressure on the forest. The subproject requires 5.719 ha of land and the land comes under the jurisdiction of Sagarmatha National Park. The subproject will provide replacement of land and a total of 9150 seedlings will be planted at the rate of 1600 per ha and nurtured for next five years. All these activities will be done in accordance with the Procedures for

Construction of Infrastructure in Protected Areas 2080. Community people, school children and subproject workers will be sensitized on conservation of environment, biodiversity and wildlife.

c. Socio-economic and Cultural Environment

All the workers and staff have been provided with workplace insurance and PPEs. To reduce conflict between workers and locals, the code of conduct including SEA/SH has been strictly implemented. All staff and construction workers have been oriented about GBV, including SEA/SH, and the social and legal consequences faced for involvement in any form of GBV. A separate SEA/SH code of conduct has been implemented to avoid the risk of gender-based violence, sexual exploitation and abuse, and sexual harassment. Trenches especially made for underground T&D lines will be reclaimed immediately to avoid accidents.

The subproject has been actively implementing the mitigation measures outlined in the EIA and ESIA reports to minimize negative impacts during the construction phases. The subproject has responsibility to mitigate the negative impacts on the physical, chemical, biological, social, economic, and cultural sectors at the local level during construction and operation phases. The EMP/ESMP has defined the roles and responsibilities of various institutions to address issues including spoil management, pollution control, occupational health and sanitation, public safety, integrity of OUV of SNP, clear budgets, timelines and emergency preparedness provisions.

(Note: Although construction work has stopped due to cold weather conditions, material collection continues at the powerhouse site)

7. Challenges and Recommendation

Due to the extreme cold weather conditions, laborers were unable to continue working at the project site, and by mid-December, most had left. Currently, only a minimal workforce remains for the collection of construction materials.

8. Next Steps

8.1 Factory Visit/Factory Assessment Test of Electro-Mechanical Components

Upon invitation from the EM contractor, the board has decided and suggested members to plan for the factory visit of the Poseidon SA, Greece. AMHL is working on finalizing the tasks to be carried out during the stay and checklist being prepared for the visit. The visa processing work shall be finalized by the beginning of January.

8.2 Procurement of remaining accessories

Regarding this, the technical and financial report of the procurement of two power transformers and one station transformer is at final stage and will be forwarded to all related parties for the procedure within the first week of January. Also, the earthing mat design has been awarded to Clean Power Pvt Ltd and afterwards the procurement of copper mat and other necessary accessories for Power house earthing will be commenced as per the approved design.

8.3 Preparatory meeting between AMHL and stakeholders

The management and the board of AMHL has sought a meeting with all the stakeholders to discuss the status of the project and the way forward. There are also some agendas which need to be discussed that arise during the course of project implementation. The meeting is proposed in the first week of January 2026.

8.4 Review of Performance Based Agreement

As per the discussion between CREF, AEPC and AMHL, there has been the requirement of review of PBA for successful completion of the project. The preparation of necessary suggestions will be prepared by AMHL and planned for the review meeting most probably in the first week of January.

8.5 Annual General Meeting and Annual Plan of Action of AMHL

The board of AMHL has decided to conduct the third AGM of AMHL on 7th January 2026 and the preparation has already started. In the meantime, the management has also planned a workshop to discuss and prepare the annual plan of action for 2026 on 8th January 2026.

9. Appendices

ANNEX 1: Photographs

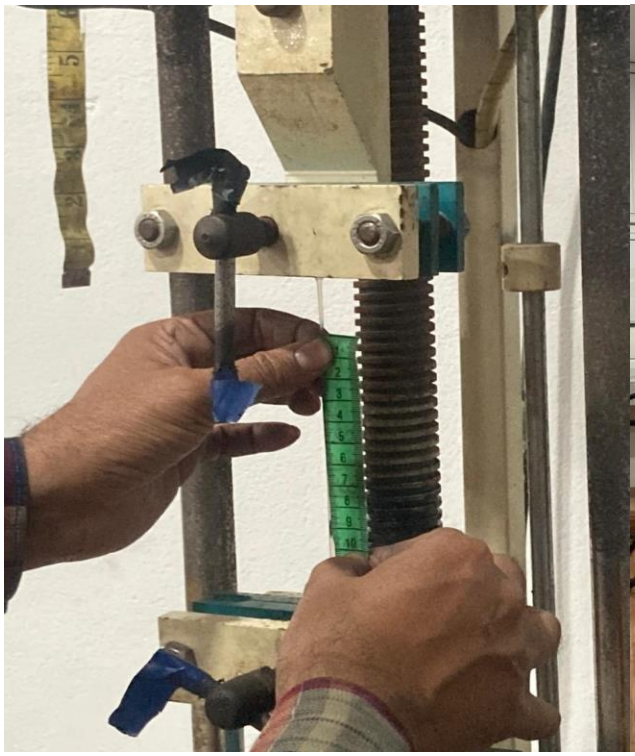


Fig1. Tensile & Elongation Test on insulation

Fig2. Conductor Resistance Test

Fig3. Insulation Thickness Measurement

Fig4. Hot Shock Test on Cable Insulation

Fig5. High Voltage on Cable

Fig6. Hot Shock Test & Shrinkage Test

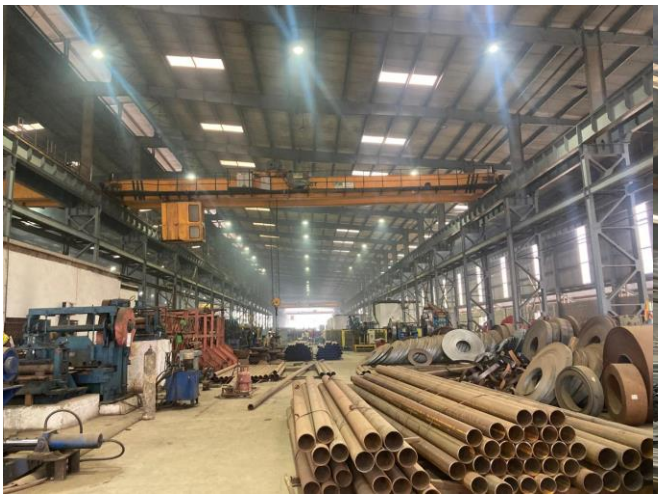


Fig7. Ungalvanized pole on stock

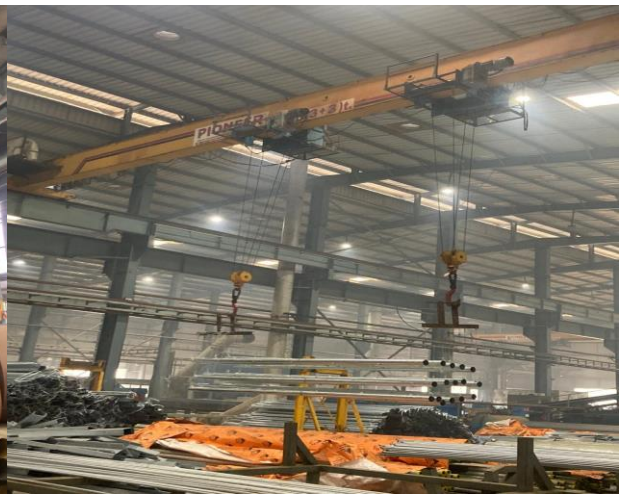


Fig8. Stockpiling of galvanized pole

Fig9. Review of finalized pole product

Fig10. Pole visit team

Fig 11. Penstock Pipes being drop at pipe alignment

Fig 12. Preparation of concrete for Saddle Support

Fig 13. Saddle Support Concrete work

Fig 14. Marking for Bends

Fig 15. Gas Cutting for Bends

Fig 16. Fabricated Bends at Surke

Fig 17. Expansion Joints (38) arrived at Surke

Fig 18. Trench formation for penstock pipe alignment

Fig 19. Excavation of Power house area

Fig 20. Site visit by Project Manager, AEPC/MGEAP

ANNEX 2: Environment health and safety status at project site

S.N.	Activities	Implementation Status	Remarks/Details
1.	Occupational Health and Safety (OHS) Measures		
1.1	Set of PPE available at Subproject	Yes	
1.2	PPE Provided to workers	Yes	
1.3	Helmet, Gloves, Jackets, Harness and Boots	Yes	
1.4	First Box with sufficient medicines at site	Yes	
2.	Human Resources at Subproject		
2.1	Project Manager	Yes	Active supervision and frequent field visit as required
2.2	Environmental and Social Safeguard Staff	Yes	Available at project site
2.3	Civil Engineer	Yes	Available at project site
2.4	Electrical Engineer	Yes	Available at project site
2.5	Mechanical Engineer	Yes	Available at project site
2.6	Workers /Labour	Yes	Available at project site
2.7	Insurance of Workers	Yes	Group Insurance
3.	Information Board and Suggestion Box		
3.1	Information Board of Subproject	Yes	

3.2	Suggestion Box	Yes	The record file is kept at the construction site.
4.	Community Consultation		
4.1	Number of Consultation Conducted	2	GRC1 Reformulation and Coordination Meeting with Pangboche Health Post
4.2	Number of People Participated in Consultation	22 and 9 (31)	Twenty-two people participated in the GRC1 reformulation meeting and nine people attended the meeting with Pangboche Health Post.
5.	Grievance Redress Mechanism		
5.1	Grievance Redress Committee Formed	Yes	GRC1 reformulation with nine committee members
5.2	Name of designated Grievance/ SEA/SH Handing Focal Person	Kalpana Dangol	ESS Officer
5.3	Grievance Registration Book	Yes	The record file is kept at the construction site.
5.4	Record of Grievance Received (If any)	NA	
6.	Placement of Signage		
6.1	Signage at Subproject Site	Yes	
6.2	Suggestion Box	Yes	The record file is kept at the construction site.
7.	Waste Management/Material Storage		

7.1	Waste Disposable Designated Area	Yes	Kitchen waste is being managed properly by collecting all kitchen refuse in a designated pit, which is covered with soil daily. The pit is barricaded to prevent potential hazards. Other solid wastes are collected, segregated, and managed following the principles of waste reduction, reuse, and recycling. Collected waste will be transported to the Pangboche waste collection site for safe disposal.
7.2	Material Storage Designated Area	Yes	Intake and Powerhouse

(Note: Although construction work has stopped due to cold weather conditions, material collection continues at the powerhouse site)

ANNEX 3: Photographs of Occupational Health and Safety (OHS)

Figure: Labor are working at construction site

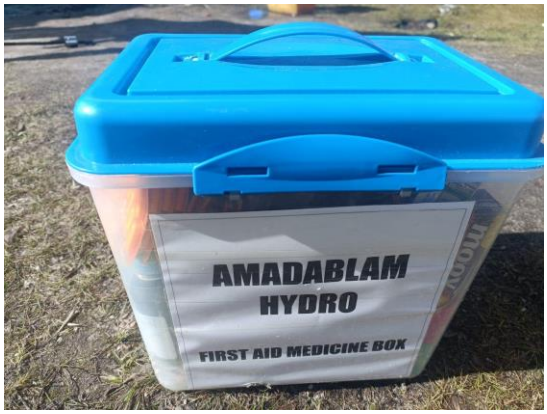
Figure: Labor Camp at Construction Site (Powerhouse)

Figure: Existing Construction Signages

Figure: Project information board at construction site

Figure: Portable water near the labor camp

Figure: Demarcation of Project Area



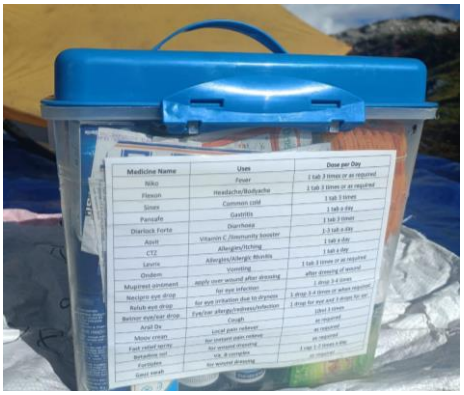


Figure: First aid box at construction site

Figure: Toilet near the labor camp (Intake area)

(Note: Although construction work has stopped due to cold weather conditions, material collection continues at the powerhouse site)

ANNEX 4: Labor Data

https://docs.google.com/spreadsheets/d/1PueHjWV0iXO5ijHT1NDS3SQikEPAIIh5g1h6g07HMtg/edit?usp=sharing